

**Table 71: 2035 AM and PM VISSIM Intersection Node Results Comparison (No-Build and Build)**

Intersection	2035 AM				2035PM			
	No-Build		Build		No-Build		Build	
	Delay (s)	LOS*	Delay (s)	LOS*	Delay (s)	LOS*	Delay (s)	LOS*
SR 535 & Meadow Creek Drive	29.2	C	28.2	C	16.9	B	16.4	B
SR 535 & I-4 EB Off Ramp/Vineland Ave	51.9	D	47.5	D	51.1	D	48.0	D
SR 535 & I-4 WB Ramps	30.1	C	21.5	C	38.3	D	27.1	C
SR 535 & Hotel Plaza Blvd	47.0	D	35.0	C	80.0	F	64.8	E
SR 535 & Palm Parkway	93.9	F	89.8	F	80.7	F	77.0	E

\*Note: Estimated LOS from VISSIM.

**Table 72: 2045 AM and PM VISSIM Intersection Node Results Comparison (No-Build and Build)**

Intersection	2045 AM				2045PM			
	No-Build		Build		No-Build		Build	
	Delay (s)	LOS*	Delay (s)	LOS*	Delay (s)	LOS*	Delay (s)	LOS*
SR 535 & Meadow Creek Drive	44.5	D	39.4	D	39.9	D	32.1	C
SR 535 & I-4 EB Off Ramp/Vineland Ave	69.8	E	65.6	E	64.8	E	55.3	E
SR 535 & I-4 WB Ramps	31.8	C	19.8	B	37.8	D	26.7	C
SR 535 & Hotel Plaza Blvd	50.3	D	37.6	D	84.0	F	70.7	E
SR 535 & Palm Parkway	104.2	F	101.0	F	98.3	F	92.0	F

\*Note: Estimated LOS from VISSIM.

## 11.2. Travel Time Comparison

As summarized in **Table 73** through **Table 75**, travel times along SR 535 decreased under the Build condition during both Design Year (2045) peak hours. The westbound express lane “Tube” is expected to provided travel time benefits ranging between 1 and 31 percent along westbound I-4 within the AOI.

Like the No-Build scenario, the eastbound travel times along I-4 in the Build scenario are impacted by the unmet demand at the beginning of the eastbound network and an active bottleneck between SR 536/SR 535 and Daryl Carter Parkway/Central Florida Parkway. Generally, the eastbound travel times are similar (within 12 seconds) between the No-Build and Build scenarios and these differences can be attributed to the stochastic nature of the simulation model and the active bottlenecks/latent demand along I-4 eastbound.

**Table 73: Travel Time Comparison (2025 No-Build and Build)**

Time Period	Travel Time Measurement	Travel Time No-Build (min)	Travel Time Build (min)	Difference (Build vs. No-Build)
AM	I-4 EB	6.2	6.2	0%
	I-4 WB	6.4	4.5	-31%
	SR 535 NB	6.3	6.5	3%
	SR 535 SB	3.8	3.7	-2%
	SR 535 NB to I-4 EB Ramp	3.1	3.3	5%
	SR 535 NB to I-4 WB Ramp	4.2	4.5	6%
	SR 535 SB to I-4 WB Ramp	2.1	1.6	-26%
	SR 535 SB to I-4 EB Ramp	2.0	2.1	0%
PM	I-4 EB	4.1	4.1	0%
	I-4 WB	6.3	4.3	-31%
	SR 535 NB	7.5	7.4	-2%
	SR 535 SB	5.7	4.7	-18%
	SR 535 NB to I-4 EB Ramp	3.4	3.3	-3%
	SR 535 NB to I-4 WB Ramp	4.9	5.0	2%
	SR 535 SB to I-4 WB Ramp	2.9	2.2	-26%
	SR 535 SB to I-4 EB Ramp	2.8	2.8	0%

**Table 74: Travel Time Comparison (2025 No-Build and Build)**

Time Period	Travel Time Measurement	Travel Time No-Build (min)	Travel Time Build (min)	Difference (Build vs. No-Build)
AM	I-4 EB	6.7	6.8	2%
	I-4 WB	9.5	9.4	-1%
	SR 535 NB	7.5	7.1	-6%
	SR 535 SB	4.3	3.8	-11%
	SR 535 NB to I-4 EB Ramp	5.5	5.1	-8%
	SR 535 NB to I-4 WB Ramp	4.6	5.1	10%
	SR 535 SB to I-4 WB Ramp	2.4	1.6	-34%
	SR 535 SB to I-4 EB Ramp	2.2	2.0	-8%
PM	I-4 EB	4.3	4.4	1%
	I-4 WB	8.1	7.6	-7%
	SR 535 NB	7.9	7.3	-8%
	SR 535 SB	5.9	4.8	-17%
	SR 535 NB to I-4 EB Ramp	3.9	3.7	-6%
	SR 535 NB to I-4 WB Ramp	4.9	5.0	1%
	SR 535 SB to I-4 WB Ramp	3.8	2.3	-38%
	SR 535 SB to I-4 EB Ramp	3.5	2.9	-17%

**Table 75: Travel Time Comparison (2045 No-Build and Build)**

Time Period	Travel Time Measurement	Travel Time No-Build (min)	Travel Time Build (min)	Difference (Build vs. No-Build)
AM	I-4 EB	7.0	7.0	0%
	I-4 WB	9.6	9.2	-4%
	SR 535 NB	8.8	8.3	-6%
	SR 535 SB	4.1	3.7	-9%
	SR 535 NB to I-4 EB Ramp	7.6	7.0	-8%
	SR 535 NB to I-4 WB Ramp	6.6	6.6	-1%
	SR 535 SB to I-4 WB Ramp	2.2	1.6	-27%
	SR 535 SB to I-4 EB Ramp	2.5	2.0	-21%
PM	I-4 EB	5.0	5.2	4%
	I-4 WB	8.5	7.9	-6%
	SR 535 NB	9.5	8.5	-11%
	SR 535 SB	6.3	5.0	-20%
	SR 535 NB to I-4 EB Ramp	7.1	5.7	-19%
	SR 535 NB to I-4 WB Ramp	7.6	6.3	-17%
	SR 535 SB to I-4 WB Ramp	3.6	2.5	-30%
	SR 535 SB to I-4 EB Ramp	3.6	3.0	-16%

The northbound SR 535 to I-4 westbound travel time is longer in the Build than the No-Build during the 2025 and 2035 peak hours. This is due to a longer travel distance (use of the new loop ramp versus the existing signalized northbound left-turn movement). Safety was a consideration and is expected to provide safety benefits by removing the 3 crossing conflicts, resulting in less severe crashes under the Build condition. It is important to note that as the SR 535 corridor becomes more congested in the Design Year (2045), the proposed Build configuration provides both operational benefits (travel time is improved in the Build versus the No Build) and safety benefits.

With the Build interchange improvements in place, drivers would experience travel time benefits of between 6 to 9 percent during the 2045 AM peak hour and between 11 to 20 percent during the 2045 PM peak hour along SR 535. Southbound travel times along SR 535 are improved due to the removal of the northbound left-turn phase at the I-4 westbound ramps intersection. There are instances where the northbound SR 535 to I-4 westbound ramp travel time is longer (no more than 30 seconds) in the Build than in the No-Build (2025 and 2035) and this is due to the longer distance traveled to/through the loop ramp as part of the proposed improvements.

### 11.3. Network Performance Comparison

As shown in **Table 76** through **Table 78**, the Build scenario provides better network performance when compared to the No-Build scenario in each of the future year peak hours. Each of the performance metrics such as average delay, average speed, total delay, latent demand, latent delay, and vehicles arrived are better in the Build when compared to the No-Build (values bolded in green in the following tables). The